

ABSTRACT

INTRODUCTION: Pancytopenia/ bicytopenia is an important clinico-hematological disorder. This study was conducted in Coimbatore Medical College Hospital to identify various causes of pancytopenia/ bicytopenia. It was done by analysing and correlating hematological indices, peripheral smear and bone marrow morphology of pancytopenia/ bicytopenia patients.

MATERIALS AND METHODS : It is a prospective study done for a period of one and half years. In this study, 101 cases of pancytopenia and 49 cases of bicytopenia as a total of 150 cases were included.

RESULTS : The most common cause of pancytopenia was Megaloblastic anemia (45.5%) followed by Combined deficiency (41.5%). The most common cause of bicytopenia was Combined deficiency (42.8%) followed by Megaloblastic anemia (22.4%). The other causes include micronormoblastic erythroid hyperplasia, leukemia, myelodysplastic syndrome, immune thrombocytopenia, metastasis and myelofibrosis. Maximum number of cases seen in the age group of 21-40 years.

CONCLUSION : In this study, causes of bicytopenia also evaluated as it is equally important as pancytopenia in the management of patients. The higher incidence of combined deficiency can be attributed to low socioeconomic status, poor hygiene, inadequate nutrition and lifestyle modification. So analysis of hematological indices, peripheral smear and bone marrow morphology becomes an important diagnostic tool for an early intervention of the patients with pancytopenia/bicytopenia.

KEYWORDS : Pancytopenia, bicytopenia, combined deficiency, megaloblastic anemia.